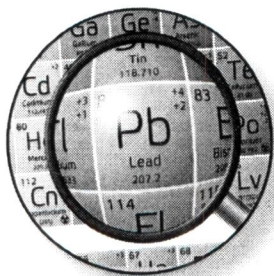


# Managing a Structures Lead Project

## Quick Start Guide



### *About the BNSF Engineering Lead Program...*

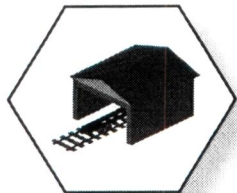
This document provides a concise "Starter Kit" of information that will enable you to manage a lead project. It is intended to supplement, and serve as a companion document, to the BNSF Engineering Lead Written Program document. As the manager of the lead project you are the designated lead competent person on the work site.

The organization of this document is in a relative order of presentation based on sequential steps you will need to take prior to, and during, a lead project. Each step also provides information on where you can find additional information in the written program and/or supplemental documents.

BNSF Railway Company  
**Engineering  
Department  
Lead  
Program**

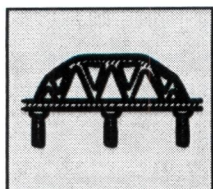
### *Where can I find the written BNSF Engineering Lead Program?*

The written program is posted on the BNSF employee portal. The path to find the document and print a copy, if you wish, is as follows: *BNSF home page/Safety/Medical and Environmental Health/Industrial Hygiene Home-page/Lead Program.*



### *Where is lead a potential exposure hazard for Engineering?*

Lead was used in coatings such as paints many years ago. Lead-based paint has not been used at BNSF for many years. However, very old structures - primarily steel bridges - are a potential source of lead.

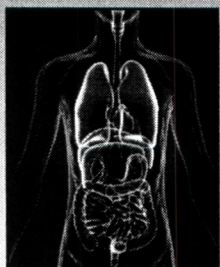


The lead coating presents very little hazard unless it is subjected to physical forces that either create lead fume or fine dust, such as may occur during bridge repairs, renovations, and removals.



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### ***What Health Risks are Associated with Lead Exposure?***

Extended, long-term (chronic) overexposure can result in severe damage to the central nervous system, particularly the brain. It can also damage the blood-forming, urinary, and reproductive systems. There is no sharp dividing line between rapidly-developing acute effects of lead and chronic effects that take longer to develop.

The potential routes of lead entry into the body include inhalation, ingestion from lead-contaminated food, and even from contact on skin and eyes.

Consult section 1 in the written BNSF lead program document for additional information.



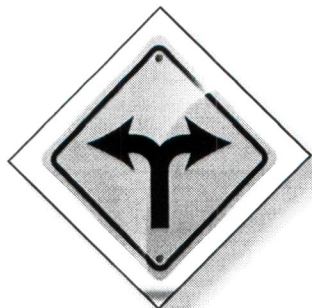
### ***What processes will create an inhalation hazard?***

Hot work processes such as welding and use of a cutting torch will sufficiently heat the lead in a coating to the point it will produce lead fume. This fume can be inhaled into the lungs.

Mechanical process such as grinding will produce a finely-divided lead dust that can also be inhaled.



Accordingly, these processes require a specific level of respiratory protection. Consult the BNSF MOW Safety Rulebook, Section S-21.8, Respirator Table, for specific respirators required by task. Consult Section 2 of the written BNSF lead program document for additional information.



### ***Project Step 1: Determine the classification of your project.***

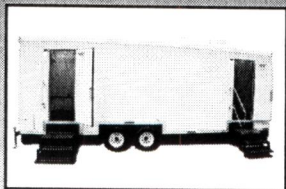
Contact your BNSF Industrial Hygiene Manager to discuss your project well in advance of starting. The IH Manager can help you determine if your project is either a 1.) Small-scale, short duration project or a 2.) Large-scale, long duration project.

The classification will determine, in part, required work practices and whether a decontamination trailer will be required for the project. Where lead contact will be minimal, alternative personal hygienic practices may be substituted for a full decontamination trailer. Consult Section 7 of the written BNSF lead program document for additional information.



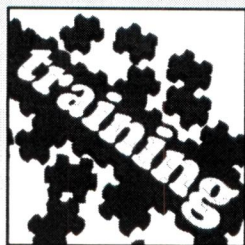
# Managing a Structures Lead Project

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### ***Project Step 2: If you will need a Decon Trailer...***

The BNSF Engineering Department owns two decontamination trailers. You will need to check the current location and use status of these and also facilitate transportation of the trailer to your work location.



### ***Project Step 3: Ensure your employees are lead trained***

BNSF has produced a lead training program in Powerpoint format. Your Industrial Hygiene Manager can assist you by coming to your location and training your employees. The training takes approximately one hour to complete. Consult Section 7 of the written BNSF lead program document for additional information.

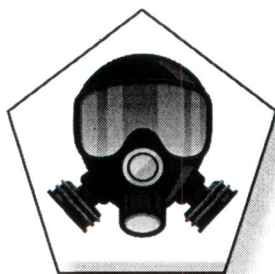


### ***Project Step 4: Coordinate employee blood lead training***

This testing must be made available to employees. Blood testing for lead will be available voluntarily for all projects and require under certain circumstances.

The Competent Person will coordinate blood lead testing for their location. The BNSF Medical and Environmental Health Department (MEH) will work with the Engineering Department to assist in coordinating testing for the company. Call the Medical Help Line at 593-4900 or 888-634-1011 option 3 to arrange for a blood lead test. All blood lead tests must be coordinated through the Help Line to assure that the test is performed at an OSHA-approved laboratory under BNSF contract. Consult Section 7 of the written BNSF lead program document for additional information.

### ***Project Step 5: Make sure your employees meet the respirator requirements***



All personnel who will wear a respirator (half-mask or powered air purifying model) must be fully qualified to wear the respirator(s) to be used. Respirator types approved for lead projects: Full-face, powered air-purifying respirator (PAPR) is required for hot work (i.e. welding, torch cutting, or rivet busting) on lead-coated steel, and a half-mask, air purifying respirator is allowed for bolt installation/removal on lead-coated bridges where pneumatic tools are used and no hot work is performed.

Employees must be current on their medical qualification (every 3 years), training (annual), fit-testing (annual), and in compliance with facial hair rules applicable to the respirator used. Consult the BNSF Respiratory Protection program document for additional details.



# Managing a Structures Lead Project

## Quick Start Guide

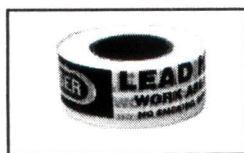


### *Project Step 6: Order adequate supplies and required PPE*

Personal protective equipment includes coveralls, hoods, gloves and boots and undergarments. Environmental conditions will dictate the type of work clothing, such as thermal insulated shirts, pants, gloves and undergarments that may be needed in addition to coveralls.

If re-usable coveralls and hoods are used on a project, then provisions need to be made to have these items professionally laundered. Contaminated clothing needs to be bagged for transport and the laundry facility needs to be aware that the clothing contains lead dust.

Provide the Professional Laundry Vendor Notification to the laundry vendor in advance of them providing services to BNSF. The facility needs to be aware that the clothing contains lead dust. Consult Section 7 of the written lead program document for additional details.



### *Project Step 7: Isolate the lead work area*

Barrier tape must be used to keep unprotected personnel from entering a lead work area. Consult the lead project ordering information posted on the Industrial Hygiene site of the intranet portal.



### *Project Step 8: Post the lead work area with required signage*

Warning signs must be posted on the perimeter of where lead-disturbing activities are to take place. Signs must be cleaned and maintained in a position to be easily visible from all approaches to the lead work area. The signs should read: *Warning, Lead Work Area, Poison, No Smoking Or Eating*. Consult Section 7 of the written lead program. The state of California also requires posting specific to its Proposition 65 law. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



### *Project Step 9: Make sure that you have hand and face-washing facilities*

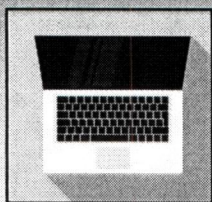
These facilities (including water, cleansing agents and towels) must be made available on a worksite so employees can wash their hands and faces prior to leaving a work site. Wet-wipe towels can be used in place of running water. Many decontamination trailers have a hand and face cleaning station, in addition to showers, as a part of the trailer. Consult Section 7 of the written program document.





# Managing a Structures Lead Project

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### ***Project Step 10: Complete the Site-Specific Lead Program form and post on-site***

The Competent Person should complete the Site Specific Lead Compliance Plan and post this on the job site for the duration of the project.

The form is available for download from the employee portal: BNSF homepage/Safety/Medical and Environmental Health/Industrial Hygiene/Engineering Department Lead Program/Site Specific Plan.

The form is primarily fill-in-the-blank/check the appropriate box and relatively simple to complete. Consult the written Engineering Department Lead program document, Section 7. Link to Engineering Site Specific Lead Compliance Plan here.



### ***Project Step 11: Be aware of and ensure compliance with prohibitions***

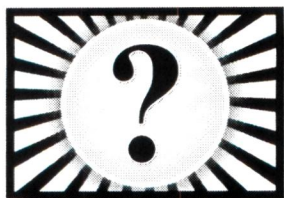
Prohibit food, beverage (other than water/sports drinks) and cigarette consumption in the work area behind the lead warning signs. Consumption of these items should occur only after employees have exited the lead work area and have washed their hands and faces.

Water is allowed within the work area, but the water should be stored in a closed container (such as an ice chest) and located away from dust-generating activities. Employees should move away from dust producing activities and wash their hands and face with soap and water or wet wipes/towels prior to consuming water or sports drinks within work areas.

For more information on water and sports drink requirements, consult the BNSF Railway Heat Stress program document and related Medical Briefing documents.

### ***Questions?***

If you have questions contact the Industrial Hygiene Manager for your region. He or she will be happy to clarify anything that is unclear and help you facilitate your project.



[\*Link to Industrial Hygiene Manager contact information\*](#)

[\*Link to the Industrial Hygiene Lead Program page\*](#)

[\*Link to Lead Training Program\*](#)

[\*Link to Lead Equipment Ordering Information\*](#)

[\*Link to Professional Laundry Vendor Notification\*](#)